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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,417	01/11/2006	Yong-Hun Lee	NEK0008US	9507
23413 7590 03/19/2009 CANTOR COLBURN, LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER RABAGO, ROBERTO				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
03/19/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

Office Action Summary

Application No.

10/564,417

Applicant(s)

LEE ET AL.

Examiner

Roberto Rábago

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-9 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. The declaration of Yong-Hun Lee filed 12/17/2008 is sufficient to amend "aryl methacrylate" to "allyl methacrylate" in the specification and claims.

Specification

2. The substitute specification filed 12/17/2008 has not been entered because it does not conform to 37 CFR 1.125(b) in that it does not include an accompanying statement that the substitute specification includes no new matter. Applicants' response includes a statement that "the amendments to the specification and claim 4 are not new matter"; however, this passage fails to satisfy the rule because: (a) this appears to be opinion/argument rather than the attesting statement intended by the rule, and (b) it cannot be determined whether applicants' statement covers the entire substitute specification, or only "the amendments" indicated in the marked up version. If applicants desire a substitute specification to be entered, they are advised to use the language recited in the rule without modification, i.e. "The substitute specification includes no new matter." Furthermore, new copies of both the marked-up version and clean version should be filed because the rule requires that the statement regarding new matter accompany the filing of the substitute specification.

3. The specification is objected to in view of applicants' declaration filed 12/17/2008, wherein applicant states that throughout the specification, "allyl methacrylate" was erroneously translated as "aryl methacrylate." Correction is required, preferably by the filing of a substitute specification in compliance with 37 CFR 1.125.

Claim Rejections - 35 USC § 102/103

4. Claims 1 and 4-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koizumi et al. (US 6,309,739).

The reference discloses in Example 4 a three stage process of making an acrylate copolymer wherein the first stage makes butyl acrylate/methyl methacrylate copolymer crosslinked with allyl methacrylate, the second stage makes butyl acrylate crosslinked with allyl methacrylate, and the third stage makes uncrosslinked butyl acrylate/methyl methacrylate copolymer. In the overall resultant polymer composition, the crosslinked polymer components comprise butyl acrylate and crosslinking agent in about 10 wt%, and the non-crosslinked component comprises about 9 wt% of butyl acrylate and 81 wt% of methyl methacrylate. Regarding claim 2, the claimed degree of swelling would appear to be inherent in the cited example because it is made by substantially the same method as shown in applicants' specification, and applicants have claimed a broad range of values which are conventional for the type of polymer described in the reference. The burden of proof is shifted to applicants to show otherwise.

Newly specified product-by-process limitations are interpreted in accordance with MPEP 2113:

PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

ONCE A PRODUCT APPEARING TO BE SUBSTANTIALLY IDENTICAL IS FOUND AND A 35 U.S.C. 102 /103 REJECTION MADE, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBVIOUS DIFFERENCE. "The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

The reference uses a different method than that specified in the product-by-process portion newly added to claim 1. However, applicants have not traversed the prior version of the claim, wherein the structural requirements of the composition (in the absence of the product-by-process language) were identical with the current version. Furthermore, they have not provided any basis to conclude that the process features, which are open to an unlimited array of additional unrecited process steps, would necessarily exclude the reference compositions. If any differences resulting from use of the specified process can be shown, such differences would be obvious variations resulting from use of the disclosed reference process. The burden of proof is shifted to

applicants to show that the specified process would necessarily render the reference compositions outside the claimed scope.

Claim Rejections - 35 USC § 103

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koizumi et al. (US 6,309,739).

The parent claims are discussed with respect to this reference above. The reference has not reported the Mw of the non-crosslinked copolymer. However, one of ordinary skill in the art would be motivated to make a copolymer within the claimed weight range because applicants have claimed a broad range of values which are conventional for the type of copolymers disclosed in the reference methods.

6. Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Roberto Rábago/
Primary Examiner
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RR
March 15, 2009